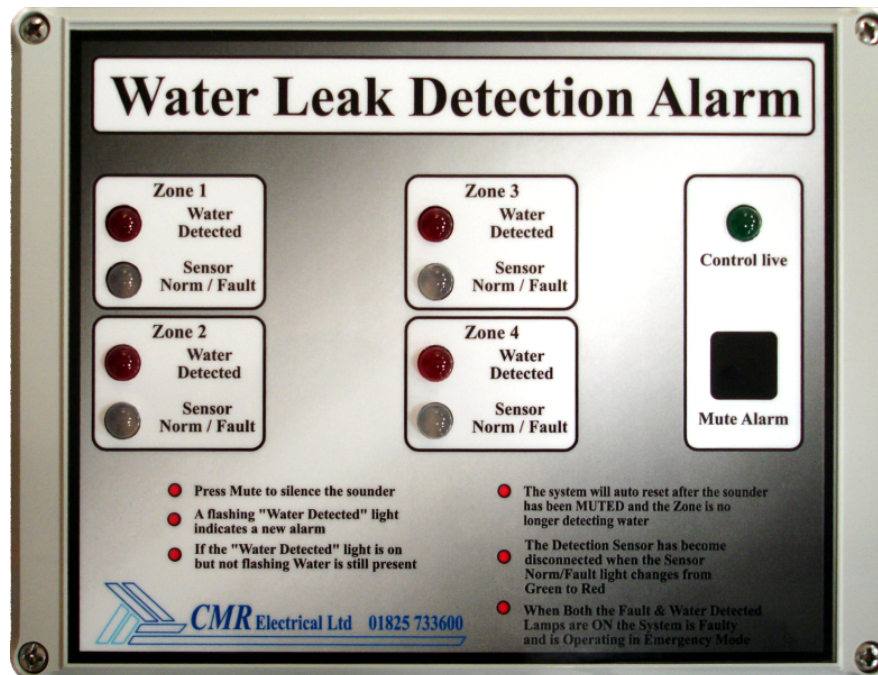




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## Three & Four Zone Water Leak Detection Alarm type LD4



The LD4 has been designed to monitor four independent zones in critical areas for water leaks via linier detection cables or spot sensors. Any number of spot sensors or a maximum of 50 metres of linier water detection cable can be connected to each zone.

The unit comes as standard with monitoring for disconnection / damage to any or all of the four zones and includes the interconnecting as well as the water detection cable/ sensor. Any disconnection of any detection cable or sensor from the controller will instigate a "Sensor Fault" alarm. The unit contains an audible warning device, Mute push button, and volt free contacts for onward signalling.

### *Features*

- \* On board audible warning device to alert local operators of a problem
- \* Alarms latched until Mute operated to give indication of transient water leaks
- \* Small size foot print, wall or surface mounted
- \* Zone signal isolation to stop multiple alarms due to sensors coming into contact with Earth
- \* Common Alarm and Fault relays for onward signalling
- \* Optional zone alarm relays to onward signal to a BMS or used to shutdown water valves
- \* Monitoring of each zone cable and sensor to ensure continuity and integrity
- \* A Bi-directional DC signal in the sensors to stop electrolyses and polarisation
- \* Individual Zone sensitivity adjustment allowing any zone to be set for high to low sensitivity
- \* Large 8mm display lamps

When water is detected by one of the zones, the appropriate lamp will start to flash, the audible warning device will start and the common alarm or fault relay will close. The unit will remain in this condition even if water has been removed from the sensor. Muting the alarm will stop the sounder and the lamp flashing, if water is still present and being detected by the unit the lamp will remain ON but not flashing, if the water has been removed before muting the lamps will extinguish and the system will automatically reset. Automatic reset will occur after muting and the removal of the water.

Each zone is provided with a sensitivity potentiometer, this has been provided to allow individual zones to be set to high or low sensitivity, low sensitivity should be used for areas known to experience high humidity or water splashes. The LD4 as standard has a common alarm and common fault relay which can be used for onward signal to a Building Management Systems, telephone dialler or control systems. The unit if required can also be fitted with individual Alarm relays that will advise a BMS system which zone is in alarm. The relays can also be used to control Water Shut Off valves. Unlike other water detection units on the market, the LD range from CMR electrical uses a bi-directional (AC) signal within the sensors. Using alternating current stops electrolyses which causes the sensors to disintegrate leaving the system unable to detect water. The use of alternating current also allows the sensors to be continually monitored even when submersed in water. This allows the system to self reset after water has been removed for the sensor and no further action to reinstate or reset the system is required from the operator. Battery backup for up to six hours can be provided, however if requested, longer backup times can be provided.

Because CMR Electrical design and build all their own equipment in house, we are able to modify the standard design to suite customers requirements, if you need a special application please call or send an email.

### ***Optional Equipment***

- ✳ **Individual zone alarm volt free contacts**
- ✳ **Battery Backup**
- ✳ **SMS text messaging for common alarm**
- ✳ **Water valve shutoff including the valve**
- ✳ **Beacon for remote indication of a leak**



### ***Specification***

Housing type .....	Polycarbonate, colour light grey similar to RAL7035
Mounting .....	Wall, flush or surface
Size Standard unit .....	200mm wide x 150mm high x 78mm deep
Size with battery backup or SMS .....	250mm wide x 160mm high x 92mm deep
Size with battery backup and SMS .....	300mm wide x 160mm high x 120mm deep
Colour .....	Light grey
Input power .....	50 Hz single phase 230VAC +10% - 6%
Burden .....	< 4VA
Power termination .....	Internal 3 way terminal block
Voltage to sensor .....	Bi-directional 5VDC
Connections to sensor .....	Internal terminal block
Access into Housing .....	Top, bottom or back
Common Alarm output contacts .....	Changeover contact rated at 3 amp 230VAC
Common Fault output contacts .....	Changeover contact rated at 3 amp 230VAC